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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/815,386	03/22/2001	Amy J. Witty	2316.1465US01	3930

23552 7590 07/16/2004

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EXAMINER

SINGH, RAMNANDAN P

ART UNIT PAPER NUMBER

2644

DATE MAILED: 07/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/815,386

Applicant(s)

WITTY ET AL.

Examiner

Ramnandan Singh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 May 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 May 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed on May 03, 2004 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1-5, 10-13, 18-20, 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sinclair, III et al [US 20020118820 A1] in view of Chang et al [US 6,159,040].

Regarding claim 1, Sinclair, III et al teaches a telecommunication assembly (i.e. electronic assembly and high density digital line subscriber line splitter) [Fig. 1; Abstract] wherein the splitter includes six splitter port cards, each of which includes twenty-four splitter ports. These six splitter port cards are in electrical communication with eighteen external connectors, of which six provide digital subscriber line connections (i.e. **data connections**), six provide public switch telephone network connections (i.e. **voice connections**), and six provide loop connections (i.e. **line connections**) [Para. 0013]. Fig. 6 shows a diagrammatic view showing the circuits making up a single splitter port including a plurality of splitters physically connected to a board [Para. 0009; 0034; 0049-0056]. Each splitter card is disposed within the housing

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between, and in substantially perpendicular relation to, the first side and the second side. A connector card is disposed adjacent, and in substantially parallel relation, to the back of the housing. The connector card includes a plurality of external connectors that extend through the openings through the back of the housing. Finally, an edge card is disposed in substantially parallel relation to the connector card wherein the edge card includes a plurality of internal connectors disposed in electrical communication with the external connectors of the connector card [Para. 0011; 0040-0046; 0057; 0059].

Further, Sinclair III et al teach a circuit board (i.e. housing 12) having a splitter assembly 10 comprising connector card 14, and edge card 16 shown in Fig. 1 [Para. 0036]. Fig. 7 shows a connection structure between connector 14 and edge card 16. Further, head strips 62 is attached to front of connector 14 wherein the head strips 62 include metal pins 63 extending towards the socket strips 66 of the edge card 16 for mating openings of the socket strips 66. Clearly, the metal strips 63 are exposed [Para. 0046; 0057-0059].

Although Sinclair, III et al do not teach expressly insulators connected to the circuit board so as to cover the exposed ends of the termination posts, the use of insulators for protecting from electrical shocks is well-practiced in the art. Further, in view of the exposed head strips 62, Sinclair III et al suggest that other art recognized connection means, such as "zebra" type strips, or the like may also be utilized in place of edge card 16. In this context, Chang et al constitute a prior art as a recognized connection means.

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Chang et al teach insulator members (i.e. **a stacked electrical connector assembly**) connected the circuit board so as to cover (i.e. **provide an insulating housing**) the exposed ends of the termination posts shown in Fig. 1 [col. 1, line 66 to col. 2, line 21; col. 2, lines 55-62].

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to apply the insulator members of Chang et al to cover the exposed areas of the electric connections with Sinclair, III et al. The suggestion for doing so would have been to protect a device from being short-circuited [Chang et al; col. 1, lines 42-45].

Claims 10 and 18 are essentially similar to Claim 1 and are rejected for the reasons stated above apropos of claim 1.

Regarding claim 2, Sinclair, III et al uses standard 50 pin Amphenol type connectors for connecting the line, data and voice, wherein each splitter card includes 24 splitter ports [Para. 0009; 0010; 0012; 0017; 0007; 0013; 0049].

Claim 11 is essentially similar to claim 2 and is rejected for the reasons stated above apropos of claim 2.

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Regarding claim 3, Sinclair, III et al teaches that each splitter card is disposed within the housing between, and in substantially perpendicular relation to, the first side and the second side. In essence, this is vertically stacked [Para. 0011].

Regarding claim 4, the combination of Sinclair, III et al and Chang et al teaches applying fasteners to attach the insulator to the circuit board (i.e. **attached to the bracket**) [Chang et al; Figs. 1-3 col. 1, lines 49-56; col. 1, line 66 to col. 2, line 21; col. 4, lines 29-49].

Claims 12 and 19 are essentially similar to Claim 4 and are rejected for the reasons stated above apropos of claim 4.

Regarding claim 5, the combination of Sinclair, III et al and Chang et al teaches the telecommunication assembly, wherein each of the insulators 4 comprises a strip [Chang et al; Fig. 4; col. 4, lines 53-65].

Claims 13 and 20 are essentially similar to Claim 5 and are rejected for the reasons stated above apropos of claim 5.

Regarding claim 25, Chang et al further teach using fasteners (i.e. **bracket**) for providing a dual function of connecting the insulator members to the circuit board and stabilizing the connectors [col. 2, lines 2-21].

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4. Claims 6-9, 14-17, 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Sinclair, III et al and Chang et al as applied to claims 5, 13 and 20 above, and further in view of Minks et al [US 3,960,436].

Regarding claim 6, Chang et al teach insulators 4 having strips each include mounting flanges (i.e. **protrusion 21**) projecting outwardly, the mounting flanges defining openings (i.e. **slots**) for receiving fasteners (i.e. **mating**) [col. 2, lines 8-21; col. 4, lines 29-39; col. 3, line 64 to col. 4, line 11]. No details on the shape of the strip and recesses are disclosed. So one of the ordinary skill in the art would have been motivated to seek any known embodiment of multipoint electrical connectors having insulator strips with recesses of a defined shape, such as Minks et al.

Minks et al teach a multipoint electrical connector employing an insulator and contact strips of substantially rectangular cross-section which are inserted into curved recesses in the insulator [Figs. 1a thru 2g; col. 1, lines 5-11].

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use the strips of substantially rectangular cross-section of Minks et al with Chang et al to tight-fittingly insert into recesses in the insulator [Minks et al; col. 1, lines 9-10].

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Claims 14 and 21 are essentially similar to Claim 6 and are rejected for the reasons stated above apropos of claim 6.

Regarding claim 7, selecting a strip wherein the mounting flanges are thinner than the midportion of the strip is basically a design choice for an intended use.

Claims 15 and 22 are essentially similar to Claim 7 and are rejected for the reasons stated above apropos of claim 7.

Regarding claim 8, Chang et al further teach the insulators 4 comprising a positioning recess 42 for receiving the exposed end of the termination posts [col. 3, line 64 to col. 4, line 14; col. 4, lines 53-65; col. 5, lines 61-63; col. 7, lines 5-13].

Claims 16 and 23 are essentially similar to Claim 8 and are rejected for the reasons stated above apropos of claim 8.

Regarding claim 9, Minks et al further teach a multipoint connector with contact recesses in the insulator as semicircular openings [col. 2, lines 16-23]. Minks et al do not teach the recess having a rectangular shape, which is basically a design choice for an intended use.

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Claims 17 and 24 are essentially similar to Claim 9 and are rejected for the reasons stated above apropos of claim 9.

5. Claims 26-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Magyar et al [US 20030190838 A1].

Regarding claim 26, Magyar et al teach an insulator for covering exposed termination posts (i.e. **receptacle assembly made of a plastic material**) [Para: 0056; 0071] of a telecommunications (i.e. **telephone**) [Para: 0005; 0050-0051; 0075; 0077], the insulator (i.e. **plastic assembly**) [Para: 0010] comprising:

elongated dielectric strips including a midportion and two mounting flanges (**numbers not shown**) each on the two sides of the device shown in Fig. 7 that project outwardly from opposite ends the midsection [Para: 0061-0066; 0076-0077; 0094; claim 6];

the mounting flanges defining openings for receiving fasteners [Para: 0064]; and
a recess for receiving the exposed termination posts, the recess having a length that extends along a majority of a total length of the dielectric strip [Para: 0047; 0066; 0093; 0100-0101; claim 10].

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to define a recess in any portion of the strip including the mid portion.

Regarding claim 27, Magyar et al further teach a rectangular recess 926 [Fig. 23].

Regarding claim 29, Magyar et al further teach rounded flanges [Figs. 17, 19; Para: 0079-0080; 0093-0094].

Regarding claims 28, 30-31, Magyar et al do not teach expressly the specific values of the recess and the flanges as claimed. However, Magyar et al suggest using recesses having various sizes and shapes to accommodate the differing physical configurations [Para: 0047; 0063-0065]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use any dimension for the recess and the flanges in order to accommodate the covering of exposed termination posts of the telecommunications device subject to circuit, system and design constraints.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

(i) Vermon et al [US 5,800,197] teach a connection strip for high data rate lines having two flanges 21 and 22 [Fig. 1];

(ii) Sherwood [US 4,197,945] teaches a pin connector to protect electrical connector pins [Figs. 1-4]; and

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(iii) Lwee et al [US 5,106,313] teach a header device [Fig. 4].

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramnandan Singh whose telephone number is (703)308-6270. The examiner can normally be reached on M-F(8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Forester Isen can be reached on (703)-305-4386. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ramnandan Singh
Examiner
Art Unit 2644

A handwritten signature in black ink, appearing to read 'RMS', is written over the printed name of the examiner.